Dell™ P2010H Flat Panel Monitor User's Guide

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Setting Up the Monitor

Operating the Monitor

Troubleshooting

Appendix

Notes, Notices, and Cautions

NOTE: A NOTE indicates important information that helps you make better use of your computer.

NOTICE: A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

CAUTION: A CAUTION indicates a potential for property damage, personal injury, or death.

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Model P2010Ht

May 2009 Rev. A00

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About Your Monitor

Dell™ P2010H Flat Panel Monitor User's Guide

- Package Contents
- Product Features
- Identifying Parts and Controls
- Monitor Specifications
- Plug and Play Capability
- Universal Serial Bus (USB) Interface
- LCD Monitor Quality and Pixel Policy
- Maintenance Guidelines

Package Contents

Your monitor ships with the components shown below. Ensure that you have received all the components and contact Dell if something is missing.

NOTE: Some items may be optional and may not ship with your Monitor. Some features or media may not be available in certain countries.

	• Monitor
	• Stand
	• Power Cable
	• VGA Cable (attached to the monitor)

	• DVI Cable
	• USB up stream cable (enables the USB ports on the monitor)
	• *Drivers and Documentation* media • *Quick Setup Guide* • Safety Information

Product Features

The **P2010H** flat panel display has an active matrix, thin-film transistor (TFT), liquid crystal display (LCD). The monitor features include:

■ 20-inch (508 mm) viewable area display (Measured diagonally) .

■ 1600 x 900 resolution, plus full-screen support for lower resolutions.

■ Wide viewing angle to allow viewing from a sitting or standing position, or while moving from side-to-side.

■ Tilt, swivel, vertical extension and rotate adjustment capability.

■ Removable pedestal and Video Electronics Standards Association (VESA) 100 mm mounting holes for flexible mounting solutions.

■ Plug and play capability if supported by your system.

■ Retractable label card allows convenient access to monitor serial number for technical support and easily hidden away providing label-free clean look.

■ On-Screen Display (OSD) adjustments for ease of set-up and screen optimization.

■ Software and documentation media includes an information file (INF), Image color Matching File (ICM), and product documentation.

■ Energy Saver feature for Energy Star compliance.

■ Security lock slot.

■ Asset Management Capability.

■ Capability to switch from wide aspect to standard aspect ratio while maintaining the image quality.

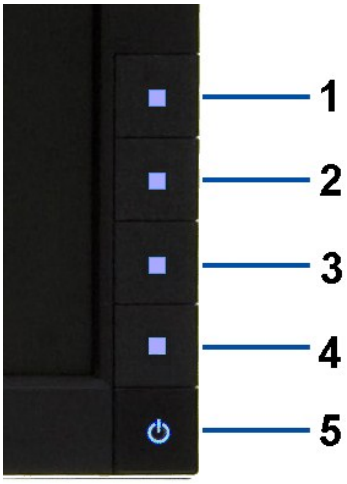
■ EPEAT Gold Rating.

■ Halogen Reduced.

Identifying Parts and Controls

Front View

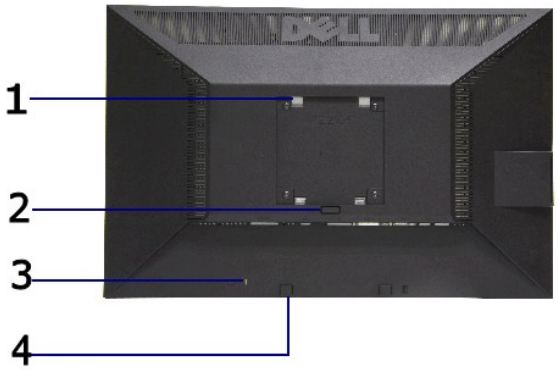
Front View



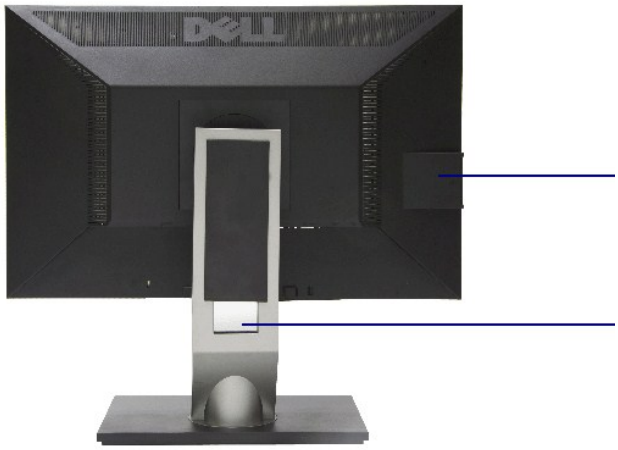
Front panel controls

Label	Description
1	Preset Modes (default, but configurable)
2	Brightness & Contrast (default, but configurable)
3	Menu
4	Exit
5	Power (with power light indicator)

Back View



Back view

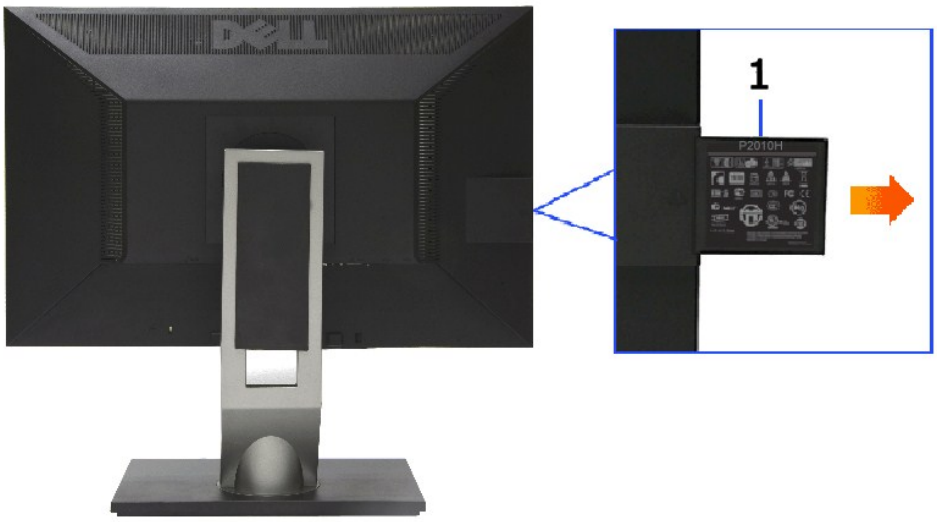


Back view with monitor stand

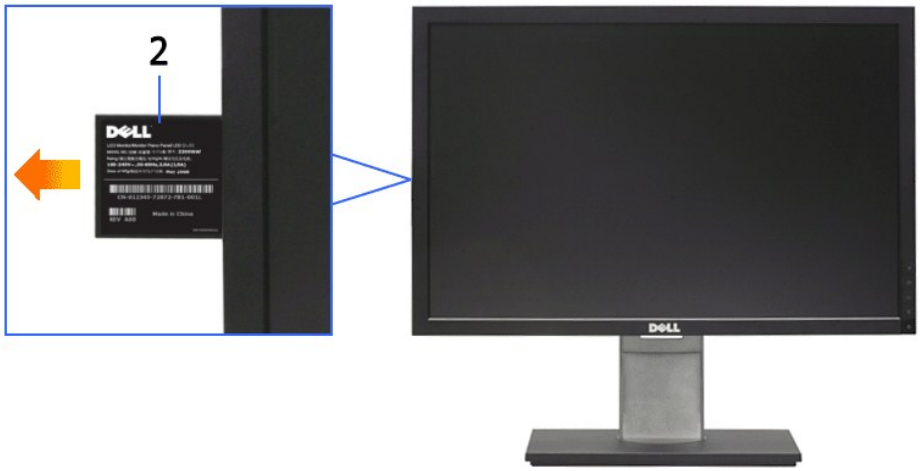
Label	Description	Use
1	VESA mounting holes (100 mm x 100 mm - behind attached base plate)	Wall mount monitor using VESA compatible wall mount kit (100 mm x 100 mm)
2	Stand removal button	Release stand from monitor.
3	Security lock slot	Secures monitor with security cable lock
4	Dell Soundbar mounting brackets	Attaches the optional Dell Soundbar.
5	Information mark	Help locating regulatory and barcode labels
6	Cable management slot	Organizes cables by placing them through the slot.

Label Card View

NOTE: Monitor shipped with label card fully inserted in USB compartment. Pull out the label card to access the barcode serial number label and regulatory ra



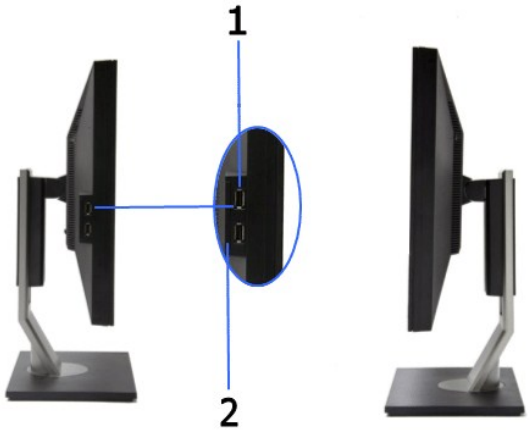
Back View with label card pulled out



Front View with label card pulled out

Label	Description	Use
1	Regulatory label	Lists the regulatory approvals.
2	Barcode serial number label	To contact Dell for technical support.

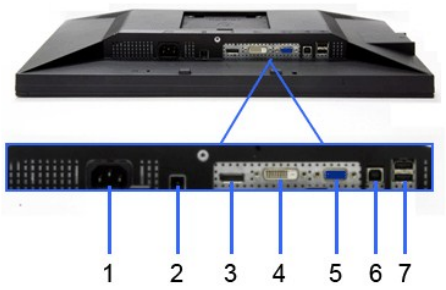
Side View



Left view **Right view**

Label	Description	Use
1	USB downstream ports	Connect your USB devices.
2	Label card	Provide clean monitor back view when reference to labels is not required.

Bottom View



Bottom view **Bottom view with monitor stand**

Label	Description	Use
1	AC power cord connector	Connect the power cable
2	DC power connector for Dell Soundbar.	Connect the power cord for the soundbar (optional)
3	DisplayPort connector	Connect your computer DP cable
4	DVI connector	Connect your computer DVI cable
5	VGA connector	Connect your computer VGA cable
6	USB upstream port	Connect the USB cable that came with your monitor to the monitor and the computer. Once this cable is connected you can use the USB connectors on the side and bottom of the monitor.
7	USB downstream ports	Connect your USB devices. You can only use this connector after you have connected the USB cable to the computer and USB upstream connector on the monitor.

Monitor Specifications

Flat Panel Specifications

Screen type	Active matrix - TFT LCD
Panel type	TN

Screen dimensions	20 inches (20-inch viewable image size)
Preset display area:	442.8(H) X 249.1(V)
Horizontal	442.8(H) mm (17.4 inches)
Vertical	249.1(V) mm (9.8 inches)
Pixel pitch	0.277 mm
Viewing angle	160° (vertical) typical, 170° (horizontal) typical
Luminance output	250 CD/m²(typical)
Contrast ratio	1000 to 1 (typical), 10000 to 1 (typical Dynamic Contrast On)
Faceplate coating	Antiglare with hard-coating 3H
Backlight	2-CCFL edgelight system
Response Time	5ms panel typical
Color depth	16.7 million colors
Color Gamut	83%*

*[P2010H] color gamut (typical) is based on CIE1976 (83%) and CIE1931 (72%) test standards.

Resolution Specifications

Horizontal scan range	30 kHz to 83 kHz (automatic)
Vertical scan range	56 Hz to 76 Hz (automatic)
Maximum preset resolution	1600 X 900 at 60 Hz

Supported Video Modes

Video display capabilities (DVI & DP playback)	480p, 576p, 720p, 1080p

Preset Display Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (Horizontal/Vertical)
VESA, 720 x 400	31.5	70.0	28.3	-/+
VESA, 640 x 480	31.5	60.0	25.2	-/-
VESA, 640 x 480	37.5	75.0	31.5	-/-
VESA, 800 x 600	37.9	60.3	40.0	+/+
VESA, 800 x 600	46.9	75.0	49.5	+/+
VESA, 1024 x 768	48.4	60.0	65.0	-/-
VESA, 1024 x 768	60.0	75.0	78.8	+/+
VESA, 1152 x 864	67.5	75.0	108.0	+/+
VESA, 1600 x 900	60.0	60.0	108.0	+/+

Electrical Specifications

Video input signals	Analog RGB, 0.7 Volts +/- 5%, positive polarity at 75 ohm input impedance Digital DVI-D TMDS, 600mV for each differential line, positive polarity at 50 ohm input impedance DP 1.1a signal input support
Synchronization input signals	TTL levels required and separate syncs (including Trigger points), SOG (Composite SYNC on green)
AC input voltage/frequency/current	100 to 240 VAC/50 or 60 Hz ± 3 Hz/1.5A (Typical)
Inrush current	120 V: 30 A (Max.) 240 V: 60 A (Max.)

Physical Characteristics

Connector type	15-pin D-subminiature, blue connector; DVI-D, white connector;DP,black connector.

Signal cable type	Digital: Detachable, DVI-D/DisplayPort, Solid pins, shipped detached from the monitor Analog:attachable, D-Sub, 15pins, shipped attached to the monitor
Dimensions (with stand)	
Height (extended)	17.14 inches (435.4 mm)
Height (compressed)	12.42 inches (315.4 mm)
Width	18.95 inches (481.4 mm)
Depth	6.77 inches (171.9 mm)
Dimensions (without stand)	
Height	11.32 inches (287.5 mm)
Width	19.07 inches (484.4 mm)
Depth	2.50 inches (63.5 mm)
Stand dimensions	
Height (extended)	14.20 inches (360.80 mm)
Height (compressed)	9.48 inches (240.80 mm)
Width	9.84 inches (249.90 mm)
Depth	6.77 inches (171.90 mm)
Weight	
Weight with packaging	14.76 lbs (6.71 kg)
Weight with stand assembly and cables	12.87 lbs (5.85 kg)
Weight without stand assembly (For wall mount or VESA mount considerations - no cables)	8.47 lbs (3.85 kg)
Weight of stand assembly	3.39 lbs (1.54 kg)

Environmental Characteristics

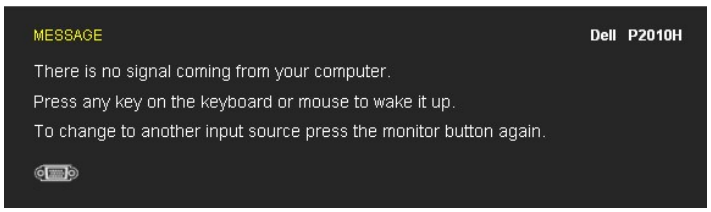
Temperature	
Operating	0° to 40 ° C
Non-operating	Storage: -20° to 60° C (-4° to 140° F) Shipping: -20° to 60° C (-4° to 140° F)
Humidity	
Operating	10% to 80% (non-condensing)
Non-operating	Storage: 5% to 90% (non-condensing) Shipping: 5% to 90% (non-condensing)
Altitude	
Operating	3,657.60 m (12,000 ft) max
Non-operating	12,192 m (40,000 ft) max
Thermal dissipation	244.08 BTU/hour (maximum) 107.50 BTU/hour (typical)

Power Management Modes

If you have VESA's DPM™ compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use. This is referred to as *Power Save Mode**. If the computer detects input from keyboard, mouse, or other input devices, the monitor automatically resumes functioning. The following table shows the power consumption and signaling of this automatic power saving feature:

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	Blue	21 W (typical)
Active-off mode	Inactive	Inactive	Blanked	Amber	Less than 0.5 W
Switch off	-	-	-	Off	Less than 0.5 W

The OSD will only function in the normal operation mode. When any button is pressed in Active-off mode, one of the following messages will be displayed:


MESSAGE
Dell P2010H
There is no signal coming from your computer.
Press any key on the keyboard or mouse to wake it up.
To change to another input source press the monitor button again.

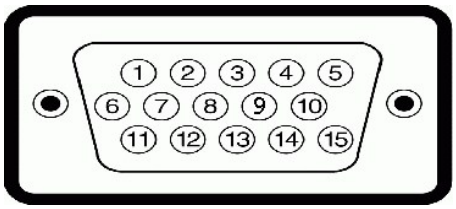
Activate the computer and the monitor to gain access to the OSD.

NOTE: This monitor is **ENERGY STAR**®-compliant as well as TCO '03 power management compatible.

* Zero power consumption in OFF mode can only be achieved by disconnecting the main cable from the monitor.

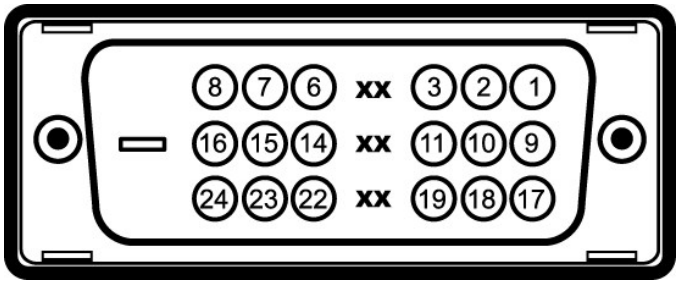
Pin Assignments

VGA Connector



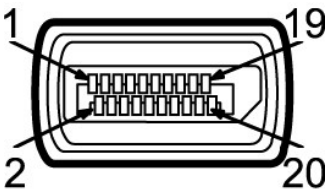
Pin Number	15-pin Side of the Connected Signal Cable
1	Video-Red
2	Video-Green
3	Video-Blue
4	GND
5	Self-test
6	GND-R
7	GND-G
8	GND-B
9	Computer 5V/3.3V
10	GND-sync
11	GND
12	DDC data
13	H-sync
14	V-sync
15	DDC clock

DVI Connector



Pin Number	24-pin Side of the Connected Signal Cable
1	TMDS RX2-
2	TMDS RX2+
3	TMDS Ground
4	Floating
5	Floating
6	DDC Clock
7	DDC Data
8	Floating
9	TMDS RX1-
10	TMDS RX1+
11	TMDS Ground
12	Floating
13	Floating
14	+5V/+3.3V power
15	Self test
16	Hot Plug Detect
17	TMDS RX0-
18	TMDS RX0+
19	TMDS Ground
20	Floating
21	Floating
22	TMDS Ground
23	TMDS Clock+
24	TMDS Clock-

DisplayPort Connector



Pin Number	20-pin Side of the Connected Signal Cable
1	ML0(p)
2	GND
3	ML0(n)
4	ML1(p)
5	GND
6	ML1(n)
7	ML2(p)
8	GND
9	ML2(n)
10	ML3(p)
11	GND
12	ML3(n)
13	GND
14	GND
15	AUX(p)
16	GND
17	AUX(n)
18	HPD

19	Re-PWR
20	PWR

Plug and Play Capability

You can install the monitor in any Plug and Play-compatible system. The monitor automatically provides the computer system with its Extended Display Identification Data (EDID) using Display Data Channel (DDC) protocols so the system can configure itself and optimize the monitor settings. Most monitor installations are automatic; you can select different settings if desired. For more information about changing the monitor settings, see Operating the Monitor.

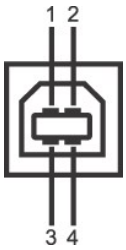
Universal Serial Bus (USB) Interface

This section gives you information about the USB ports that are available on the left side of your monitor.

NOTE: This monitor supports High-Speed Certified USB 2.0 interface.

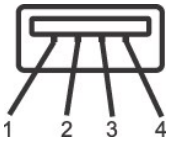
Transfer speed	Data Rate	Power Consumption
High speed	480 Mbps	2.5W (Max., each port)
Full speed	12 Mbps	2.5W (Max., each port)
Low speed	1.5 Mbps	2.5W (Max., each port)

USB Upstream Connector



Pin Number	4-pin Side of the Connector
1	DMU
2	VCC
3	DPU
4	GND

USB Downstream Connector



Pin Number	4-Pin Side of the Signal Cable
1	VCC
2	DMD
3	DPD
4	GND

USB Ports

- 1 upstream - back
- 4 downstream - 2 on back; 2 on left side

NOTE: USB 2.0 functionality requires a USB 2.0-capable computer

NOTE: The monitor's USB interface works only when the monitor is on or in power save mode. If you turn off the monitor and then turn it on, the attached p to resume normal functionality.

LCD Monitor Quality and Pixel Policy

During the LCD Monitor manufacturing process, it is not uncommon for one or more pixels to become fixed in an unchanging state which are hard to see and do not affect the display quality or usability.For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: **support.dell.com**.

Maintenance Guidelines

Cleaning Your Monitor

⚠ **WARNING: Read and follow the safety instructions before cleaning the monitor.**

⚠ **WARNING: Before cleaning the monitor, unplug the monitor power cable from the electrical outlet.**

For best practices, follow the instructions in the list below while unpacking, cleaning, or handling your monitor:

- To clean your antistatic screen, lightly dampen a soft, clean cloth with water. If possible, use a special screen-cleaning tissue or solution suitable for the antistatic coating. Do not use benzene, thinner, ammonia, abrasive cleaners, or compressed air.
- Use a lightly-dampened, warm cloth to clean the monitor. Avoid using detergent of any kind as some detergents leave a milky film on the monitor.
- If you notice white powder when you unpack your monitor, wipe it off with a cloth.
- Handle your monitor with care as a darker-colored monitor may scratch and show white scuff marks more than a lighter-colored monitor.
- To help maintain the best image quality on your monitor, use a dynamically changing screen saver and turn off your monitor when not in use.

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Appendix

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- Safety Instructions
- FCC Notice (U.S. Only) and Other Regulatory Information
- Contacting Dell

WARNING: Safety Instructions

WARNING: Use of controls, adjustments, or procedures other than those specified in this documentation may result in exposure to shock, electrical hazards, and/or mechanical hazards.

For information on safety instructions, see the *Product Information Guide*.

FCC Notices (U.S. Only) and Other Regulatory Information

For FCC notices and other regulatory information, see the regulatory compliance website located at www.dell.com\regulatory_compliance.

Contacting Dell

For customers in the United States, call 800-WWW-DELL (800-999-3355).

NOTE: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Visit **support.dell.com**.
2. Verify your country or region in the **Choose A Country/Region** drop-down menu at the bottom of the page.
3. Click **Contact Us** on the left side of the page.
4. Select the appropriate service or support link based on your need.
5. Choose the method of contacting Dell that is convenient for you.

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Setting Up Your Monitor

Dell™ P2010H Flat Panel Monitor

If you have a Dell™ desktop or a Dell™ portable computer with internet access

1. Go to **http://support.dell.com,** enter your service tag, and download the latest driver for your graphics card.

2. After installing the drivers for your Graphics Adapter, attempt to set the resolution to **1600x900** again.

NOTE: If you are unable to set the resolution to 1600x900, please contact Dell™ to inquire about a Graphics Adapter that supports these resolutions.

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Setting Up Your Monitor

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If you have a non Dell™ desktop, portable computer, or graphics card

1. Right-click on the desktop and click **Properties**.

2. Select the **Settings** tab.

3. Select **Advanced**.

4. Identify your graphics controller supplier from the description at the top of the window (e.g. NVIDIA, ATI, Intel etc.).

5. Refer to the graphic card provider website for updated driver (for example, http://www.ATI.com OR http://www.NVIDIA.com).

6. After installing the drivers for your Graphics Adapter, attempt to set the resolution to **1600X900** again.

NOTE: If you are unable to set the resolution to 1600x900, please contact the manufacturer of your computer or consider purchasing a graphics adapter that will support the video resolution of 1600x900.

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Operating the Monitor

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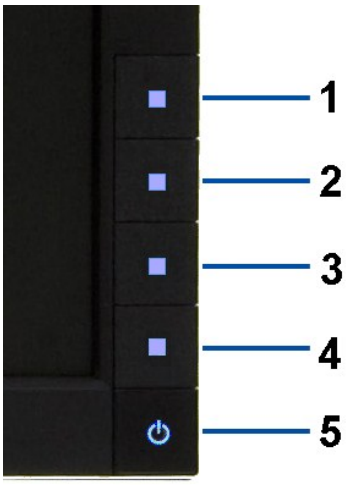
- Using the Front Panel Controls
- Using the On-Screen Display (OSD) Menu
- Setting the Maximum Resolution
- Using the Dell Soundbar (Optional)
- Using the Tilt, Swivel, and Vertical Extension
- Rotating the monitor
- Adjusting the Rotation Display Settings of Your System

Using the Front Panel

Use the control buttons on the front of the monitor to adjust the characteristics of the image being displayed. As you use these buttons to adjust the controls, an OSD shows the numeric values of the characteristics as they change.



The following table describes the front panel buttons:

	Front panel Button	Description
1	**Shortcut key / PresetModes**	Use Preset Modes to set the display mode to Graphics or Video according to the input signal. Select Graphics if you are connecting a computer to your monitor; Select Video if you are connecting a DVD player, STB, or VCR player to your monitor.
2	**Shortcut key / Brightness/Contrast**	Use this button to directly access the "Brightness/Contrast" menu or to increase the values of the selected menu option.
3	**Menu**	Use the MENU button to launch the on-screen display (OSD) and select the OSD Menu. See Accessing the Menu System.
4	**Exit**	Use this button to go back to the main menu or exit the OSD main menu.

5	Power (with power light indicator)	Use the Power button to turn the monitor on and off. The Blue LED indicates the monitor is on and fully functional. An amber LED indicates DPMS power save mode.

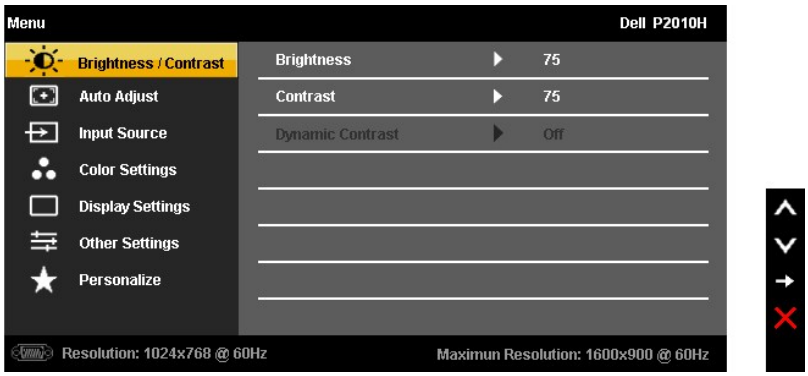
Using the On-Screen Display (OSD) Menu

Accessing the Menu System

NOTE: If you change the settings and then either proceed to another menu or exit the OSD menu, the monitor automatically saves those changes. The changes are also saved if you change the settings and then wait for the OSD menu to disappear.

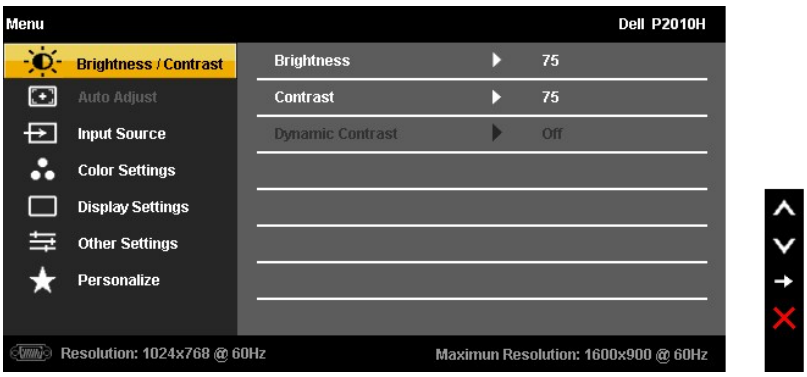
1. Push the button to launch the OSD menu and display the main menu.

Main Menu for analog (VGA) Input



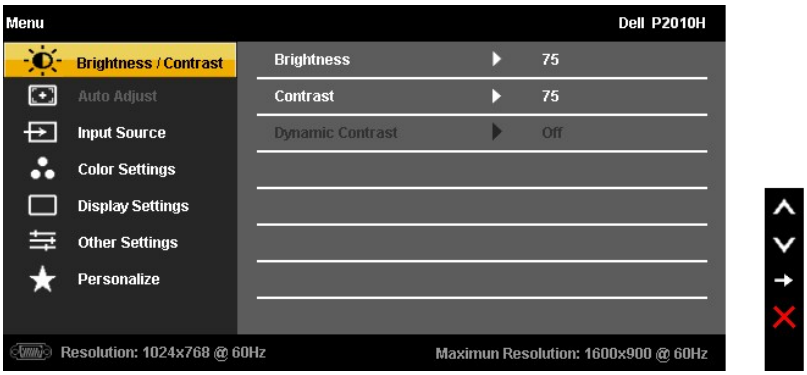
or

Main Menu for digital (DVI) Input



or

Main Menu for display (DP) Input



NOTE: AUTO ADJUST is only available when you use the analog (VGA) connector.

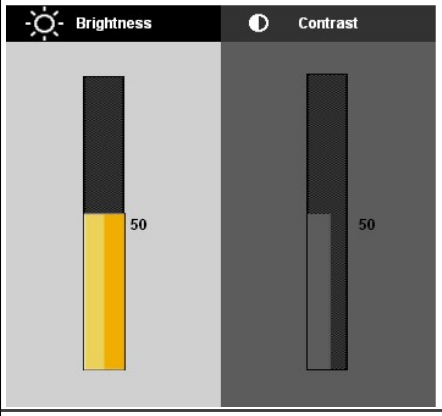
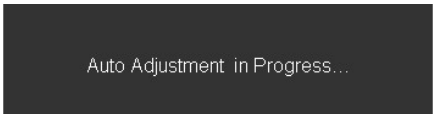
2. Push the and buttons to move between the setting options. As you move from one icon to another, the option name is highlighted. See the following table for a complete list of all the options available for the monitor.

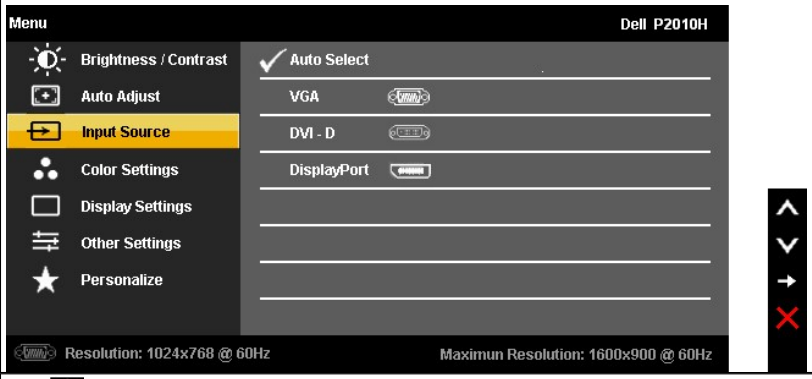
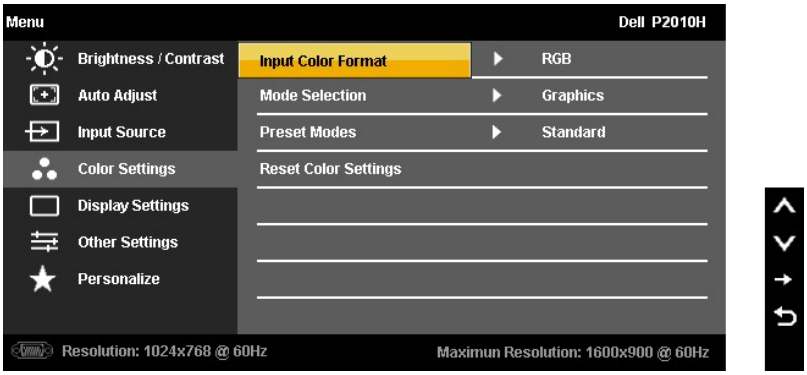
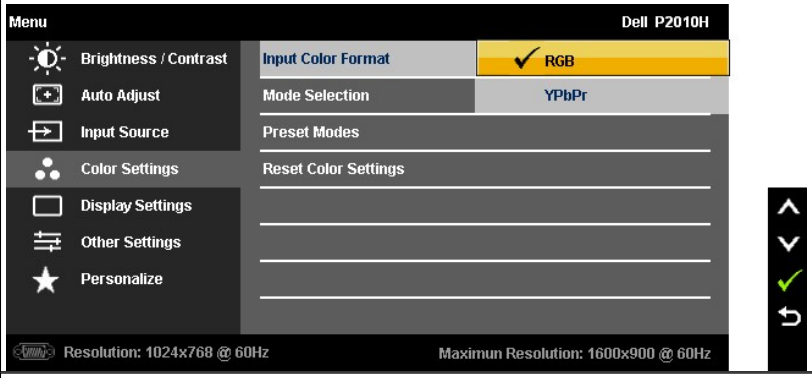
3. Push the button once to activate the highlighted option.

4. Push and button to select the desired parameter.

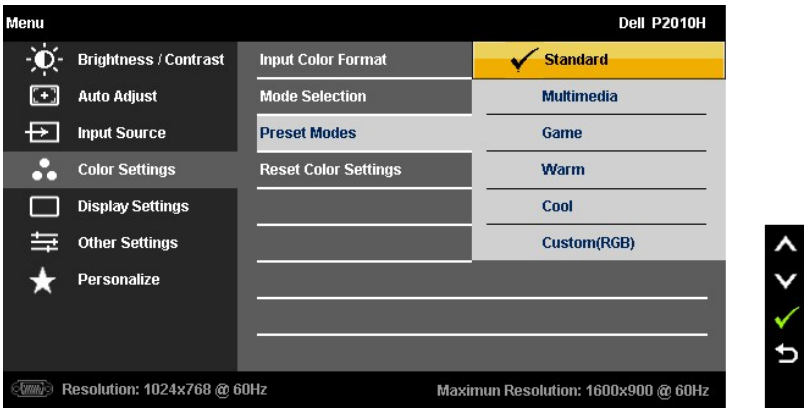
5. Push to enter the slide bar and then use the and buttons, according to the indicators on the menu, to make your changes.

6. Select the option to return to the main menu or exit the OSD menu.

Icon	Menu and Submenus	Description
	Brightness/Contrast	Use this menu to activate Brightness/Contrast adjustment. 
	Brightness	Brightness adjusts the luminance of the backlight. Push the button to increase brightness and push the button to decrease brightness (min 0 ~ max 100).
	Contrast	Adjust Brightness first, and then adjust Contrast only if further adjustment is necessary. Push the button to increase contrast and push the button to decrease contrast (min 0 ~ max 100). The Contrast function adjusts the degree of difference between darkness and lightness on the monitor screen.
	Dynamic Contrast	Dynamic Contrast adjusts the contrast ratio to 10000:1. Push the button to select the Dynamic Contrast "On" or "Off" .
	Auto Adjust	Even though your computer recognizes your monitor on startup, the **Auto Adjustment** function optimizes the display settings with your particular setup. Auto Adjustment allows the monitor to self-adjust to the incoming video signal. After using Auto Adjustment, you can further t your monitor by using the Pixel Clock (Coarse) and Phase (Fine) controls under Image Settings. 

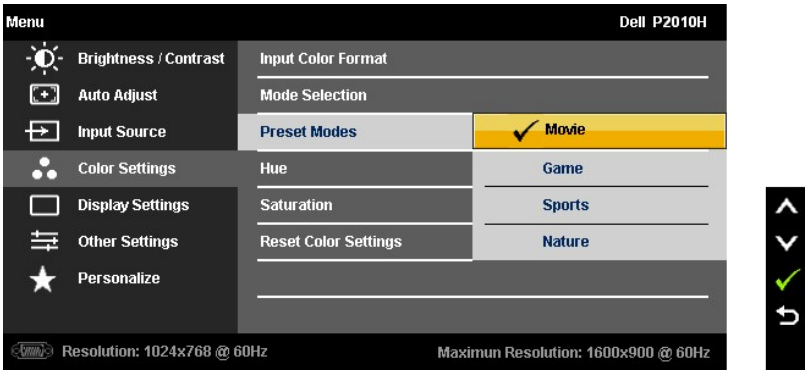
		NOTE: In most cases, Auto Adjust produces the best image for your configuration. **NOTE:** **Auto Adjust** option is only available when you are using the analog (VGA) connector.
	Input Source	Use the **Input Source** menu to select between different video signals that may be connected to your monitor. 
	Auto Select	Push → to select the **Auto source**, the monitor will Auto detc the analog siganl.
	VGA	Select **VGA input** when you are using the analog (VGA) connector. Push → to select the VGA input source.
	DVI-D	Select **DVI-D input** when you are using the Digital (DVI) connector. Push → to select the DVI input source.
	DisplayPort	Select **DisplayPort input** when you are using the DisplayPort (DP) connector. Push → to select the DisplayPort input source
	Color Settings	Use the **Color Settings** to adjust the color setting mode and color temperature. There are different color setting sub-menus for VGA/DVI-D and Video input. 
	Input Color Format	Choose the RGB option if monitor is connected to a computer or a DVD using a VGA or DVI cable. Choose the YPbPr option if m connected to a DVD by a YPbPr to VGA or YPbPr to DVI cable or if the DVD color output setting is not RGB. 
	Mode Selection	You can choose **Graphics** or **Video** according to the input signal. • **Graphics:** Select this mode if your monitor is connected to your computer. • **Video:** Select this mode if your monitor is connected to a DVD player.
	Preset Modes	When you select **Graphics**, you can choose **Standard, Multimedia, Game, Warm, Cool,** or **Custom (RGB);** • **Standard**: Loads the monitor's default color settings. This is the default preset mode. • **Multimedia**: Loads color settings ideal for multimedia applications. • **Game**: Loads color settings ideal for most gaming applications. • **Warm**: Increase the color temperature. The screen appears warmer with a red/yellow tint.

- **Cool**: Decreases the color temperature. The screen appears cooler with a blue tint.
- **Custom (RGB)**: Allows you to manually adjust the color settings. Press the and buttons to adjust the three colors (R, G values and create your own preset color mode.



When you select **Video**, you can choose **Movie, Game, Sports,** or **Nature** preset:

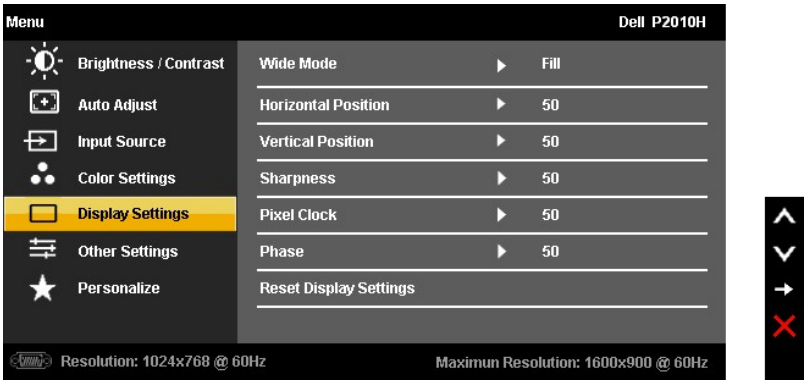
- **Movie**: Loads color settings ideal for movies. This is the default preset mode.
- **Game**: Loads color settings ideal for game.
- **Sports**: Loads color settings ideal for sports.
- **Nature**: Loads color settings ideal for nature.

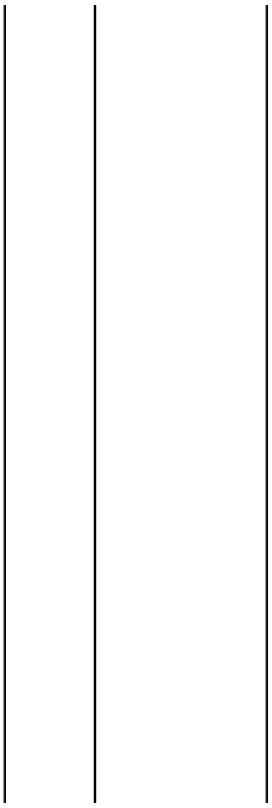


Hue	This feature can shift color of video image to green or purple. This is used to adjust the desired flesh tone color. Use or to adj hue from '0' to '100' . Press to increase the green shade of the video image. Press to increase the purple shade of the video image. **NOTE:** Hue adjustment is available only for video input.
Saturation	This feature can adjust the color saturation of the video image. Use or to adjust the saturation from '0' to '100'. Press to increase the monochrome appearance of the video image. Press to increase the colorful appearance of the video image. **NOTE:** Saturation adjustment is available only for video input.
Reset Color Settings	Reset your monitor color settings to the factory settings.

Display Settings

Use the Display Settings to adjust image.





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Setting Up Your Monitor

Dell™ P2010H Flat Panel Monitor

Setting the display resolution to 1600x900 (maximum)

For optimal display performance while using the Microsoft® Windows® operating systems, set the display resolution to 1600 x 900 pixels by performing the following steps:

1. Right-click on the desktop and click **Properties**.

2. Select the **Settings** tab.

3. Move the slider-bar to the right by pressing and holding left-mouse button and adjust the screen resolution to **1600 X900**.

4. Click **OK**.

If you do not see **1600x900** as an option, you may need to update your graphics driver. Please choose the scenario below that best describes the computer system you are using, and follow the provided directions:

1: If you have a Dell™ desktop or a Dell™ portable computer with internet access.

2: If you have a non Dell™ desktop, portable computer, or graphics card.

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Dell™ P2010H Flat Panel Monitor

User Guide

Setting the display resolution to 1600x900(maximum)

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May 2009 Rev. A00

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Setting Up the Monitor

Dell™ P2010H Flat Panel Monitor User's Guide

- Attaching the Stand
- Connecting the Monitor
- Organizing Your Cables
- Attaching the Soundbar (optional)
- Removing the Stand
- Wall Mounting (Optional)

Attaching the Stand

NOTE: The stand is detached when the monitor is shipped from the factory.

To attach the monitor stand:

1. Remove the cover and place the monitor on it.
2. Fit the two tabs on the upper part of the stand to the groove on the back of the monitor.
3. Press the stand till it snaps into its place.

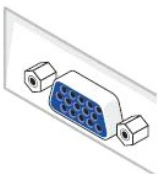
Connecting Your Monitor

WARNING: Before you begin any of the procedures in this section, follow the Safety Instructions.

To connect your monitor to the computer:

1. Turn off your computer and disconnect the power cable.

   Connect the blue (VGA) cable from your monitor to your computer.

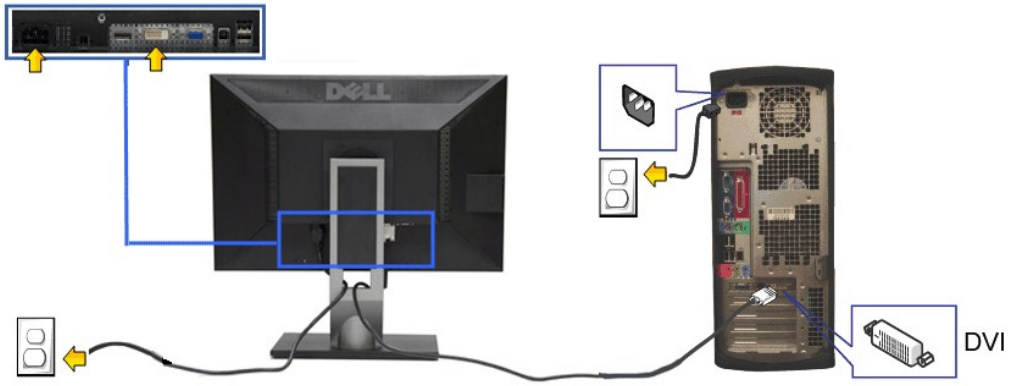


NOTE: If your computer supports a white DVI connector, unscrew and detach the blue (VGA) cable from the monitor and then connect the White DVI cable to the monitor and the white DVI connector on your computer.

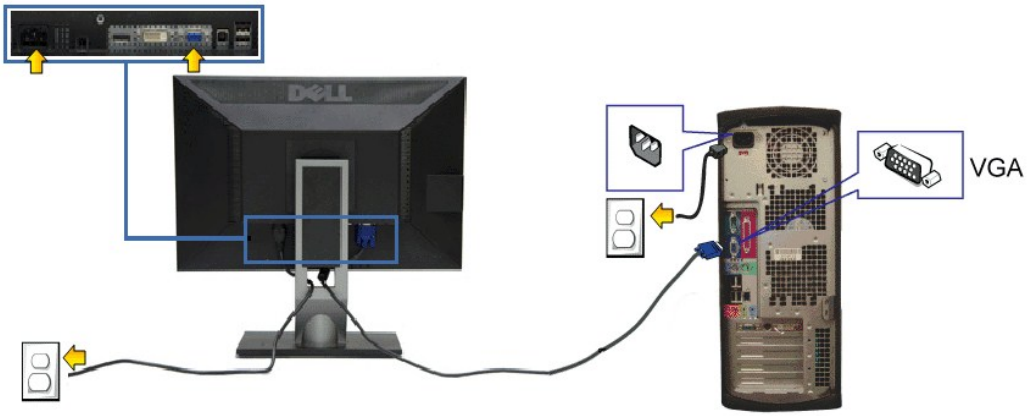
NOTE: Do not connect the blue VGA , the White DVI and the black DisplayPort cables to the computer at the same time. All monitors ship with the VGA (blue) cable attached by default.

2. Connect the white (digital DVI-D) or the blue (analog VGA) or the black (DisplayPort) display connector cable to the corresponding video port on the back of your computer. Do not use the three cables on the same computer. Use all the cables only when they are connected to three different computers with appropriate video systems.

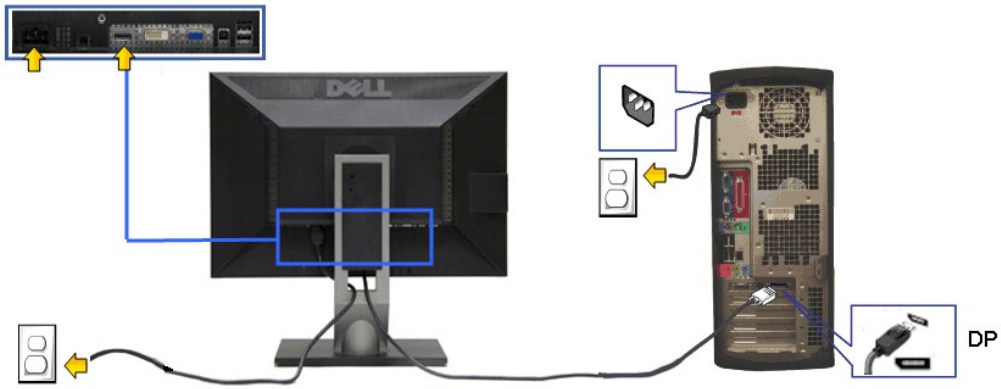
Connecting the white DVI cable



Connecting the blue VGA cable



Connecting the black DisplayPort cable



WARNING: The Graphics are used for the purpose of illustration only. Appearance of the computer may vary.

Connecting the USB cable

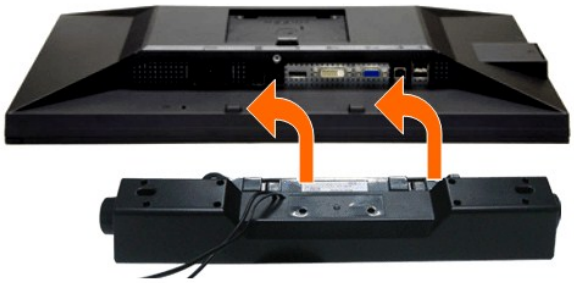
After you have completed connecting the DVI/VGA/DP cable, follow the procedure below to connect the USB cable to the computer and complete your monitor setup:

1. Connect the upstream USB port (cable supplied) to an appropriate USB port on your computer. (See bottom view for details.)
2. Connect USB peripherals to the downstream USB ports (side or bottom) on the monitor. (See side or bottom view for details.)
3. Plug the power cables for your computer and monitor into a nearby outlet.
4. Turn on the monitor and the computer.
   If your monitor displays an image, installation is complete. If it does not display an image, see Solving Problems.
5. Use the cable slot on the monitor stand to organize the cables.

Organizing Your Cables

After attaching all necessary cables to your monitor and computer, (See Connecting Your Monitor for cable attachment,) use the cable management slot to organize all cables as shown above.

Attaching the Soundbar (Optional)



NOTICE: Do not use with any device other than the Dell Soundbar.

NOTE: The soundbar power connector (+12 V DC output) is for the optional Dell Soundbar only.

To attach the soundbar:

1. Working from the back of the monitor, attach the Soundbar by aligning the two slots with the two tabs along the bottom of the monitor.
2. Slide the Soundbar to the left until it snaps into place.
3. Connect the Soundbar with the DC power connector.
4. Insert the mini stereo plug from the back of the Soundbar into the computer's audio output jack.

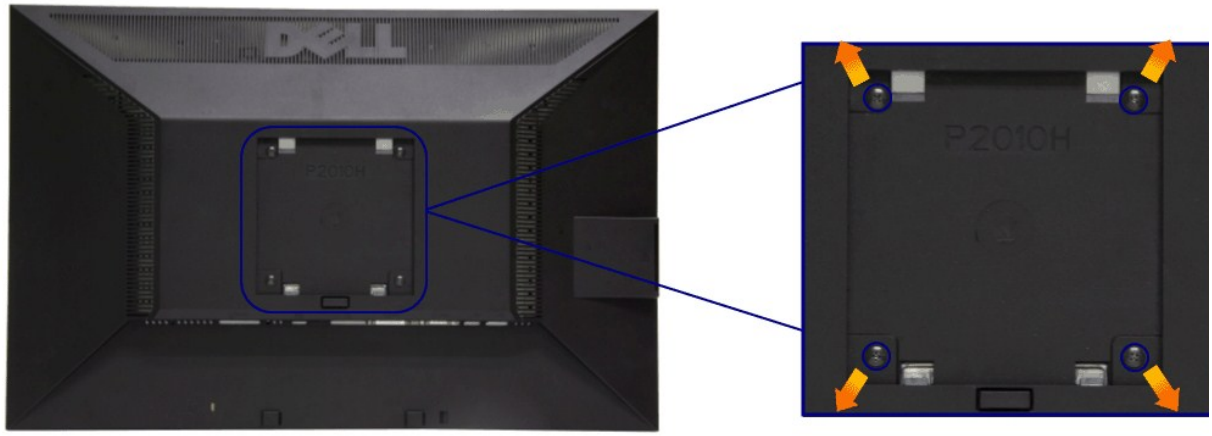
Removing the Stand

NOTE: To prevent scratches on the LCD screen while removing the stand, ensure that the monitor is placed on a soft, clean surface.

To remove the stand:

1. Place the monitor on a flat surface.
2. Press and hold the Stand release button.
3. Lift the stand up and away from the monitor.

Wall Mounting (Optional)



(Screw dimension: M4 x 10mm).

Refer to the instructions that come with the VESA compatible base mounting kit.

1. Place the monitor panel on a soft cloth or cushion on stable flat table.
2. Remove the stand.
3. Use a screwdriver to remove the four screws securing the plastic cover.
4. Attach the mounting bracket from the wall mounting kit to the LCD.
5. Mount the LCD on the wall by following the instructions that came with the base mounting kit.

NOTE: For use only with UL Listed Wall Mount Bracket with minimum weight/load bearing capacity of 4.36kg.

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Troubleshooting

Dell™ P2010H Flat Panel Monitor User's Guide

- Self-Test
- Built-in Diagnostics
- Common Problems
- Product Specific Problems
- Universal Serial Bus Specific Problems
- Dell Soundbar Problems

WARNING: Before you begin any of the procedures in this section, follow the Safety Instructions.

Self-Test

Your monitor provides a self-test feature that allows you to check whether your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer. To ensure proper Self-Test operation, remove all Digital (white connector) and the Analog (blue connector) cables from the back of computer.
3. Turn on the monitor.

The floating dialog box should appear on-screen (against a black background) if the monitor cannot sense a video signal and is working correctly. While in self-test mode, the power LED remains green. Also, depending upon the selected input, one of the dialogs shown below will continuously scroll through the screen.

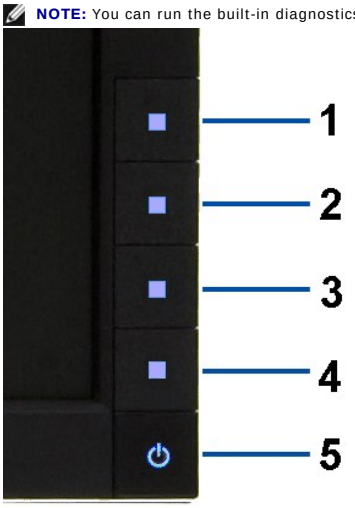
4. This box also appears during normal system operation, if the video cable becomes disconnected or damaged.
5. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor screen remains blank after you use the previous procedure, check your video controller and computer, because your monitor is functioning properly.

Built-in Diagnostics

Your monitor has a built-in diagnostic tool that helps you determine if the screen abnormality you are experiencing is an inherent problem with your monitor, or with your computer and video card.

NOTE: You can run the built-in diagnostics only when the video cable is unplugged and the monitor is in *self-test mode*.



To run the built-in diagnostics:

1. Ensure that the screen is clean (no dust particles on the surface of the screen).
2. Unplug the video cable(s) from the back of the computer or monitor. The monitor then goes into the self-test mode.
3. Press and hold the **Button 1** and **Button 4** on the front panel, simultaneously for 2 seconds. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press the **Button 4** on the front panel again. The color of the screen changes to red.
6. Inspect the display for any abnormalities.
7. Repeat steps 5 and 6 to inspect the display in green, blue, and white colored screens.

The test is complete when the white screen appears. To exit, press the **Button 4** again.

If you do not detect any screen abnormalities upon using the built-in diagnostic tool, the monitor is functioning properly. Check the video card and computer.

Common Problems

The following table contains general information about common monitor problems you might encounter and the possible solutions.

Common Symptoms	What You Experience	Possible Solutions
No Video/Power LED off	No picture	ı Ensure that the video cable connecting the monitor and the computer is properly connected and secure. ı Verify that the power outlet is functioning properly using any other electrical equipment. ı Ensure that the power button is depressed fully.
No Video/Power LED on	No picture or no brightness	ı Increase brightness & contrast controls via OSD. ı Perform monitor self-test feature check. ı Check for bent or broken pins in the video cable connector. ı Run the built-in diagnostics.
Poor Focus	Picture is fuzzy, blurry, or ghosting	ı Perform Auto Adjust via OSD. ı Adjust the Phase and Pixel Clock controls via OSD. ı Eliminate video extension cables. ı Reset the monitor to Factory Settings. ı Change the video resolution to the correct aspect ratio (16:10).
Shaky/Jittery Video	Wavy picture or fine movement	ı Perform Auto Adjust via OSD. ı Adjust the Phase and Pixel Clock controls via OSD. ı Reset the monitor to Factory Settings. ı Check environmental factors. ı Relocate the monitor and test in another room.
Missing Pixels	LCD screen has spots	ı Cycle power on-off. ı Pixel that is permanently off is a natural defect that can occur in LCD technology. ı Run the built-in diagnostics.
Stuck-on Pixels	LCD screen has bright spots	ı Cycle power on-off. ı Pixel that is permanently off is a natural defect that can occur in LCD technology. ı Run the built-in diagnostics.
Brightness Problems	Picture too dim or too bright	ı Reset the monitor to Factory Settings. ı Auto Adjust via OSD. ı Adjust brightness & contrast controls via OSD.
Geometric Distortion	Screen not centered correctly	ı Reset the monitor to Factory Settings. ı Auto Adjust via OSD. ı Adjust brightness & contrast controls via OSD. **NOTE:** When using '2: DVI-D', the positioning adjustments are not available.
Horizontal/Vertical Lines	Screen has one or more lines	ı Reset the monitor to Factory Settings. ı Perform Auto Adjust via OSD. ı Adjust Phase and Pixel Clock controls via OSD. ı Perform monitor self-test feature check and determine if these lines are also in self-test mode. ı Check for bent or broken pins in the video cable connector. ı Run the built-in diagnostics. **NOTE:** When using '2: DVI-D', the Pixel Clock and Phase adjustments are not available.
Synchronization Problems	Screen is scrambled or appears torn	ı Reset the monitor to Factory Settings. ı Perform Auto Adjust via OSD. ı Adjust Phase and Pixel Clock controls via OSD. ı Perform monitor self-test feature check to determine if the scrambled screen appears in self-test mode. ı Check for bent or broken pins in the video cable connector. ı Restart the computer in the *safe mode*.
Safety Related Issues	Visible signs of smoke or sparks	ı Do not perform any troubleshooting steps. ı Contact Dell immediately.
Intermittent Problems	Monitor malfunctions on & off	ı Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. ı Reset the monitor to Factory Settings. ı Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode.
Missing Color	Picture missing color	ı Perform monitor self-test feature check. ı Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. ı Check for bent or broken pins in the video cable connector.

Wrong Color	Picture color not good	• Change the Color Setting Mode in the Color Settings OSD to Graphics or Video depending on the application. • Try different Color Preset Settings in Color Settings OSD. Adjust R/G/B value in Color Settings OSD if the Color Management is turned off. • Change the Input Color Format to PC RGB or YPbPr in the Advance Setting OSD. • Run the built-in diagnostics.
Image retention from a static image left on the monitor for a long period of time	Faint shadow from the static image displayed appears on the screen	• Use the Power Management feature to turn off the monitor at all times when not in use (for more information, see Power Management Modes). • Alternatively, use a dynamically changing screensaver.

Product Specific Problems

Specific Symptoms	What You Experience	Possible Solutions
Screen image is too small	Image is centered on screen, but does not fill entire viewing area	• Check the Scaling Ratio setting in Image Setting OSD • Reset the monitor to Factory Settings.
Cannot adjust the monitor with the buttons on the front panel	OSD does not appear on the screen	• Turn off the monitor, unplug the power cord, plug back, and then turn on the monitor.
No Input Signal when user controls are pressed	No picture, the LED light is green. When you press "+", "-" or "Menu" key, the message "No S-Video input signal", or "No Composite input signal", or "No Component input signal" appears	• Check the signal source. Ensure the Computer is not in the power saving mode by moving the mouse or pressing any key on the keyboard. • Check to make sure Video Source to S-Video, Composite or Component is powered and playing video media. • Check whether the signal cable is plugged in properly. Re-plug the signal cable if necessary. • Reset the computer or video player.
The picture does not fill the entire screen.	The picture cannot fill the height or width of the screen	• Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen. • Run the built-in diagnostics.

NOTE: When choosing DVI-D mode, the **Auto Adjust** function is not available.

Universal Serial Bus (USB) Specific Problems

Specific Symptoms	What You Experience	Possible Solutions
USB interface is not working	USB peripherals are not working	• Check that your monitor is turned ON. • Reconnect the upstream cable to your computer. • Reconnect the USB peripherals (downstream connector). • Switch off and then turn on the monitor again. • Reboot the computer. • Some USB devices like external portable HDD require higher electric current; connect the device directly to the computer system.
High Speed USB 2.0 interface is slow.	High Speed USB 2.0 peripherals working slowly or not working at all	• Check that your computer is USB 2.0-capable. • Some computers have both USB 2.0 and USB 1.1 ports. Ensure that the correct USB port is used. • Reconnect the upstream cable to your computer. • Reconnect the USB peripherals (downstream connector). • Reboot the computer.

Dell™ Soundbar Problems

Common Symptoms	What You Experience	Possible Solutions
No Sound	No power to Soundbar - the power indicator is off	• Turn the Power/Volume knob on the Soundbar clockwise to the middle position; check if the power indicator (Blue LED) on the front of the Soundbar is illuminated. • Confirm that the power cable from the Soundbar is plugged into the adapter.
No Sound	Soundbar has power - power indicator is on	• Plug the audio line-in cable into the computer's audio out jack. • Set all Windows volume controls to their maximum • Play some audio content on the computer (i.e. audio CD, or MP3). • Turn the Power/Volume knob on the Soundbar clockwise to a higher volume setting. • Clean and reseat the audio line-in plug. • Test the Soundbar using another audio source (i.e.portable CD player).
Distorted Sound	Computer's sound card is used as the audio source	• Clear any obstructions between the Soundbar and the user. • Confirm that the audio line-in plug is completely inserted into the jack of the sound card. • Set all Windows volume controls to their midpoints. • Decrease the volume of the audio application. • Turn the Power/Volume knob on the Soundbar counter-clockwise to a lower volume setting. • Clean and reseat the audio line-in plug. • Troubleshoot the computer's sound card. • Test the Soundbar using another audio source (i.e. portable CD player, MP3 player).
Distorted Sound	Other audio source is used	• Clear any obstructions between the Soundbar and the user. • Confirm that the audio line-in plug is completely inserted into the jack of the audio source. • Decrease the volume of the audio source. • Turn the Power/Volume knob on the Soundbar counter-clockwise to a lower volume

		setting. • Clean and reseat the audio line-in plug.
Unbalanced Sound Output	Sound from only one side of Soundbar	• Clear any obstructions between the Soundbar and the user. • Confirm that the audio line-in plug is completely inserted into the jack of the sound card or audio source. • Set all Windows audio balance controls (L-R) to their midpoints. • Clean and reseat the audio line-in plug. • Troubleshoot the computer's sound card. • Test the Soundbar using another audio source (i.e. portable CD player).
Low Volume	Volume is too low	• Clear any obstructions between the Soundbar and the user. • Turn the Power/Volume knob on the Soundbar clockwise to the maximum volume setting. • Set all Windows volume controls to their maximum. • Increase the volume of the audio application. • Test the Soundbar using another audio source (i.e. portable CD player, MP3 player).

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